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10/712,725

11/13/2003

Jeng-Shyong Wu

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06/15/2006

MCGLEW & TUTTLE, PC

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EXAMINER

REHM, ADAM C

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,725

Applicant(s)

WU, JENG-SHYONG

Examiner

Adam C. Rehm

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-11,13,18-24,26 and 41-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-11,13,18-24,26 and 41-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Information Under 37 CFR § 1.105

1. This is a request that applicants provide certain information identified below. If applicant possesses this information, then applicant is required, under the provisions of 37 CFR 1.56, to disclose the information to the Office. A copy of 37 CFR 1.56 is enclosed for the convenience of the applicants.
2. Applicant is not required to conduct a search for information beyond applicant's own immediate files. If applicant does not have immediate knowledge of the information requested, then a statement that the information sought is unknown or not readily available to the applicant will be accepted by the office as a complete reply.
3. Why the Request for Information is Reasonably Necessary: Examiner has identified a prior art reference (HUANG US 6,299,332), with no inventor or assignee common to Applicant, containing drawings that appear to be copied by Applicant. Specifically, HUANG Figures 7 and 8 are substantially identical to Applicant's Figures 3A and 3B. Notably, Applicant failed to disclose this reference as required by 37 CFR 1.98.
4. Information Requested of Applicant: Applicant is hereby solicited to identify the origin of Applicant's other drawings and all other art related to applicant's invention, applicant's disclosure, the claimed subject matter, etc.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
 - 1) A plurality of LED chips per at least Claim 19.

2) A protective device that directly holds said LED chip, its base and bonded wires, having two plates per Claims 44 and 46.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 7, 8, 10, 11, 13, 18-22, 24, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over HUANG (US 6,299,332) in view of BRUNNER ET AL. (US RE37,554) and URBAN (US 6,669,515).

7. Regarding Claims 1-5, 7, 8, 10, 11, 13, 18??, 20-22, 24 and 26, HUANG discloses:

- A light bulb (2) enveloped by a lamp cap (1, Fig. 1);
- A plurality of insulating lead wires each having a conductor in a center (21, Fig. 7 illustrates a common insulated wire);
- Said insulator of said insulating lead wire is bent back and extended sideward (Fig. 7 shows the insulator bent back and extended sideways);
- A protective device for directly holding said LED light bulb/holding the bulb at a base thereof and the electrical connection portion (the body of the light between bulb 2 and wires 21);
- Lead wires connected to the light source in a parallel configuration/predetermined angle (Fig. 1 shows wires 21 entering the body of the light source 2 in a parallel configuration and at a predetermined angle of 180 degrees or straight line);
- A transparent, plastic protective device (Column 2, Lines 58-60) or plurality of hollow plates (Fig. 7) that are configured in various predetermined shapes (Column 2, Lines 33-34) having openings (13) for installing wires (Fig. 8); and

- A border (18/19, Fig. 9) for joining the plates and holding/enveloping the light source (Fig. 8) and locking the bent part of the wires so as not to be easily released (Fig. 8).

8. While HUANG substantially discloses the claimed invention, HUANG does not specifically disclose an LED light bulb. However, LEDs and the advantages thereof are notoriously known in the art. Moreover, BRUNNER provides an LED light bulb (1) consisting of an LED chip (2) and bonded wires (9) both connected to a plurality of lead frames (7/8) and enveloped by a lamp cap (Fig. 1) with one end of the lead frames emerging from the lamp cap (Fig. 1) thereby obtaining the well-known advantages of LEDs, e.g. long lifespan, low operating temperatures, low power consumption, etc. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the lamp unit of HUANG to include the type of LED bulb and electrical connection as taught by BRUNNER in order to obtain the known LED advantages listed above.

9. While HUANG substantially discloses the claimed invention including a protective device that supports the light and electrical connection (the body of the light between bulb 2 and wires 21), HUANG does not disclose a protective device that supports a bent insulator portion bent back and extended sideward away from a conductor. However, URBAN teaches various ways of securing a wire within an aperture of a terminal including to “bunny ear” the wire by slitting the insulation and then tying the insulation into a knot, thus requiring a technician to pull the insulation away from the conductor, so as to provide an obstruction to help prevent the wire from pulling through the aperture

(Column 1, Lines 36-49). It would have been obvious to one of ordinary skill in the art at the time of invention to modify HUANG and utilize the existing insulation as taught by URBAN in order to prevent the wire from pulling through the aperture.

10. Regarding Claims 2-4, the BRUNNER LED has a lamp cap (1) with a flange (15) and made of transparent or colored plastic (Column 5, Lines 17 and 22).

11. Regarding Claim 5, the BRUNNER LED provides an insulating positioning bracket (14) installed on said plurality of lead frames so as to firmly fix said lead frames (Fig. 1).

12. Regarding Claim 19, while BRUNNER discloses the invention as cited above, BRUNNER does not teach a plurality of chips. However, it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Therefore, it would have been obvious to one having ordinary skill in the art to duplicate the BRUNER chip in order to double the benefits provided by the chip, e.g. increased light output.

13. Regarding Claim 33-38, the HUANG device can be connected in strings, net or network arrangements (Column 1, Line 34 and Figs. 11 and 12) or a two-plate shape (Fig. 8).

14. HUANG and BRUNNER disclose the claimed invention, but do not specifically disclose insulation manipulated as claimed (i.e. "...insulation at ends of said lead wires being bent away from said conductor and extended radially at ends of said lead wires being bent away from said conductor and extending radially outward from said conductor..."). However, URBAN teaches various ways of securing a wire within an

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aperture of a terminal including to "bunny ear" the wire by slitting the insulation and then tying the insulation into a knot, thus requiring a technician to pull the insulation away from the conductor, so as to provide an obstruction to help prevent the wire from pulling through the aperture (Column 1, Lines 36-49). It would have been obvious to one of ordinary skill in the art at the time of invention to modify HUANG and utilize the existing insulation as taught by URBAN in order to prevent the wire from pulling through the aperture.

15. Claims 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over HUANG (US 6,299,332), BRUNNER ET AL. (US RE37,554) and URBAN (US 6,669,515) as applied to Claim 31 and in further view of BRUCE ET AL. (US 5,957,564).

16. HUANG discloses the invention as cited above along with the teachings of BRUNNER and URBAN, but does not disclose a power supply device connected by a plug and a socket or a functional controller. However, BRUCE teaches a lighting display having a lighting function controller (111, Column 4, Lines 48-54) and electric wiring and a plug for providing electric power to the display (Column 7, Lines 58-59). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the lamp unit of HUANG to include the type of lighting function controller, wiring and plug as taught by BRUCE in order to provide connectable electric power to the display.

17. Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over HUANG (US 6,299,332), BRUNNER ET AL. (US RE37,554) and URBAN (US

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6,669,515) as applied to Claims 1 and 18 and in further view of WILSON (US 2,077,973).

18. HUANG discloses the invention as cited above along with the teachings of BRUNNER, but do not explicitly disclose a conductor and electrodes electrically connected by welding or pressure bonding. However, WILSON teaches soldering conductor wires to a light source (Column 3, Lines 26-27, Fig. 2) to provide an electric connection. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the lamp unit of HUANG to include the type of attached electrical components via welding or the like as taught by WILSON in order to achieve the known advantages of such, e.g. to provide a secure electric connection.

19. Claims 44-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over HUANG (US 6,299,332) in view of BRUNNER ET AL. (US RE37,554) and URBAN (US 6,669,515).

20. HUANG discloses:

- A light bulb having a light emitting direction with electrodes (2, +/- electrodes) enveloped by a plastic protective device/lamp cap having two plates (1, Fig. 1);
- A plurality of insulating lead wires/frames extending from the protective device/lamp cap in a direction substantially parallel to the light emitting direction, each having a conductor in a center (21, Fig. 7 illustrates a common insulated wire);

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- Said insulator of said insulating lead wire is bent back and extended sideward (Fig. 7 shows the insulator bent back and extended sideways);
- A protective device/bulb body for directly holding said LED light bulb/holding the bulb at a base thereof and the electrical connection portion (the body of the light between bulb 2 and wires 21);
- Lead wires connected to the light source in a parallel configuration/predetermined angle (Fig. 1 shows wires 21 entering the body of the light source 2 in a parallel configuration and at a predetermined angle of 180 degrees or straight line);
- A transparent, plastic protective device (Column 2, Lines 58-60) or plurality of hollow plates (Fig. 7) that are configured in various predetermined shapes (Column 2, Lines 33-34) having openings (13) for installing wires (Fig. 8); and
- A border (18/19, Fig. 9) for joining the plates and holding/enveloping the light source (Fig. 8) and locking the bent part of the wires so as not to be easily released (Fig. 8).

21. While HUANG substantially discloses the claimed invention, HUANG does not specifically disclose an LED light bulb. However, LEDs and the advantages thereof are notoriously known in the art. Moreover, BRUNNER provides an LED light bulb (1) consisting of an LED chip (2) and bonded wires (9) both connected to a plurality of lead frames (7/8) and enveloped by a lamp cap (Fig. 1) with one end of the lead frames emerging from the lamp cap (Fig. 1) thereby obtaining the well-known advantages of LEDs, e.g. long lifespan, low operating temperatures, low power consumption, etc. It

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would have been obvious to one of ordinary skill in the art at the time of invention to modify the lamp unit of HUANG to include the type of LED bulb and electrical connection as taught by BRUNNER in order to obtain the known LED advantages listed above.

22. HUANG and BRUNNER disclose the claimed invention, but do not specifically disclose insulation manipulated as claimed (i.e. "...insulation at ends of said lead wires being bent away from said conductor and extended radially at ends of said lead wires being bent away from said conductor and extending radially outward from said conductor..."). However, URBAN teaches various ways of securing a wire within an aperture of a terminal including to "bunny ear" the wire by slitting the insulation and then tying the insulation into a knot, thus requiring a technician to pull the insulation away from the conductor, so as to provide an obstruction to help prevent the wire from pulling through the aperture (Column 1, Lines 36-49). It would have been obvious to one of ordinary skill in the art at the time of invention to modify HUANG and utilize the existing insulation as taught by URBAN in order to prevent the wire from pulling through the aperture.

Response to Arguments

23. Applicant's argument filed 3/24/2006 regarding election of species has been considered and is persuasive.

24. The species illustrated by Figures 1A and 1B is considered generic.


Conclusion/Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACR
6/6/2006


Thomas M. Smith
Primary Examiner